

AMENDMENTS TO THE CLAIMS

1-13. (Cancelled)

14. (Previously Presented) A *Borellia burgdorferi* epitope polypeptide with an amino acid sequence comprising SEQ ID NO: 7.

15. (Previously Presented) The epitope polypeptide of claim 14, wherein said epitope polypeptide consists essentially of SEQ ID NO: 7.

16-45. (Cancelled)

46. (Currently Amended) A *Borellia burgdorferi* epitope polypeptide with an amino acid sequence comprising SEQ ID NO: 7, wherein an antibody found in a subject with Lyme disease binds to a portion of the polypeptide containing SEQ ID NO: 7, binds to an antibody found in a subject with Lyme disease.

47. (Currently Amended) The epitope polypeptide of claim 46, wherein a composition comprises the epitope polypeptide comprises a composition.

48. (Currently Amended) The epitope polypeptide of claim 46, wherein a kit for detecting Lyme disease in a subject comprises the epitope polypeptide comprises a kit for detecting Lyme disease in a subject.

49. (Currently Amended) The epitope polypeptide of claim 46, wherein detecting Lyme disease in a subject comprises determining that said subject produces an antibody that binds to a portion of the polypeptide containing SEQ ID NO: 7, the subject detecting Lyme's disease in a subject comprises determining that a subject has the antibody found in a subject with Lyme's disease.

50. (Previously Presented) The epitope polypeptide of claim 48, wherein the subject is a human.
51. (Previously Presented) The epitope polypeptide of claim 48, wherein the kit further comprises a reporter moiety.
52. (Previously Presented) The epitope polypeptide of claim 51, wherein the reporter moiety is attached directly to the epitope.
53. (Previously Presented) The epitope polypeptide of claim 51, wherein the reporter moiety is attached directly to an epitope carrier.
54. (Previously Presented) The epitope polypeptide of claim 51, wherein the reporter moiety is attached both directly to the epitope and to the epitope carrier.
55. (Previously Presented) The epitope polypeptide of claim 51, wherein the reporter moiety is colloidal metal, carbon black, latex bead, or biotin.
56. (Previously Presented) The epitope polypeptide of claim 55, wherein the reporter moiety is biotin.
57. (Previously Presented) The epitope polypeptide of claim 56, wherein the biotin is detected with a spectrophotometer.
- 58-70. (Cancelled)